

STATUS OF CLAIMS

1. (currently amended) A method for controlling a voice-over-Internet (VOIP) network including session controllers for calls on the network, said method comprising:
obtaining information at a control location on the network concerning one or more VOIP calls gathered at one or more session controllers which control setting up, maintaining and tearing down calls at different network locations;

analyzing the information received from a session controller to determine whether any of the calls between a gateway associated with said session controller and an additional gateway associated with a different session controller are inactive; and

sending at least one command from the control location to ~~the~~ one or more of the session controllers that causes the one or more session controllers to drop any VOIP calls that are determined to be inactive.

2. (original) The method of claim 1, wherein the information concerning the VOIP calls includes call IDs and uptime values.

3. (original) The method of claim 2, wherein the step of analyzing the information includes determining whether any of the uptime values exceeds a threshold level.

4. (original) The method of claim 3, wherein a determination is made that a given call is inactive when the uptime value of that call exceeds the threshold level.

5. (original) The method of claim 3, wherein the threshold level is variable dependent on one or more other parameters.

6. (original) The method of claim 3, wherein threshold level is 180 minutes.

7. (original) The method of claim 1, wherein the information includes at least one of: (i) numbers of data packets transmitted during the VOIP calls; and (ii) numbers of data packets received during VOIP calls.

8. (original) The method of claim 7, wherein the step of analyzing the information includes determining whether the numbers of data packets transmitted during the VOIP calls,

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and/or the numbers of data packets received during VOIP calls, are substantially unchanging over time.

9. (original) The method of claim 8, wherein determination is made that a given call is inactive when the number of data packets transmitted and/or received during that call over a given period of time does not exceed a threshold level.

10. (original) The method of claim 9, wherein the threshold level is variable dependent on one or more other parameters.

11. (original) The method of claim 1, wherein the step of sending the at least one command includes transmitting the at least one command from the administrative entity to the one or more session controllers over the packet switched network.

12. (currently amended) A method for controlling a voice-over-Internet (VOIP) network including session controllers for which control setting up, maintaining and tearing down of calls at different locations on the network, said method comprising:

sending a request for information from a control location on the network to one or more session controllers concerning one or more VOIP calls being supported by ~~the~~ one or more of the session controllers; and

sending at least one command from the control location to the one or more session controllers that causes the session controllers to drop any VOIP calls that are inactive based upon information gathered from one session controller relating to VOIP calls between multiple gateways.

13. (original) The method of claim 12, wherein the step of sending the request for information from the administrative entity to the one or more session controllers is carried out at a predetermined rate.

14. (original) The method of claim 13, wherein the predetermined rate is variable depending on one or more other parameters.

15. (original) The method of claim 13, wherein the one or more other parameters include a processing load on the session controllers.

16. (original) The method of claim 12, further comprising:
receiving the information at the administrative entity; and
analyzing the information to determine whether any of the calls are inactive.

17. (original) The method of claim 12, wherein:
the information concerning the VOIP calls includes call IDs and uptime values;
the step of analyzing the information includes determining that a call is inactive when the uptime value thereof exceeds a threshold level.

18. (original) The method of claim 12, wherein:
the information includes numbers of data packets transmitted and/or received during the VOIP calls;
the step of analyzing the information includes determining that a call is inactive when the numbers of data packets transmitted and/or received during that call are substantially unchanging over time.

19. (original) The method of claim 12, wherein the step of sending the at least one command includes transmitting the at least one command from the administrative entity to the one or more session controllers over the one or more packet switched networks.

20. ~~(cancelled) currently amended~~ A method for controlling a voice over Internet (VOIP) network including session controllers for calls on the network, said method comprising:

~~—receiving a request for information from a control location on the network at one or more session controllers, the information concerning one or more VOIP calls being supported by the one or more session controllers;~~

~~—sending the information from the one or more session controllers to the control location; and~~

~~receiving at least one command at the one or more session controllers from the control location causing the one or more session controllers to drop any VOIP calls that are inactive.~~

21. (currently amended) An administrative server on a voice-over-Internet (VOIP) network ~~including session controllers which control setting up, maintaining and tearing down for calls at different locations on the network,~~ said administrative server comprising:

~~a receiver operable to obtain information concerning one or more VOIP calls gathered at one or more session controllers;~~

~~an analyzer operable to process the information to determine whether any of the calls are inactive; and~~

~~a transmitter operable to send at least one command to the one or more session controllers that causes the session controllers to drop any VOIP calls that are determined to be inactive.~~ a receiver operable to receive data passing through one of more gateways concerning VoiP calls processed by each of said one or more gateways, and a transmitter operable to transmit to at least one of said gateways a command to terminate a VoiP call between said at least one of said gateways and at least one other gateway if said data received indicates a hung call.

22. (original) The administrative server of claim 21, wherein the ~~information data concerning the VOIP calls~~ includes call IDs and uptime values.

23. (original) The administrative server of claim 22, further including an ~~wherein the analyzer of the administrative server is operable for determining to determine~~ whether any of the uptime values exceeds a threshold level.

24. (original) The administrative server of claim 23, wherein determination is made that a given call is inactive when the uptime value of that call exceeds the threshold level.

25. (original) The administrative server of claim 23, wherein the administrative server is operable to modify the threshold level dependent on one or more other parameters.

26. (original) The administrative server of claim 23, wherein threshold level is 180 minutes.

27. (original) The administrative server of claim 20, wherein the information includes at least one of: (i) numbers of data packets transmitted during the VOIP calls; and (ii) numbers of data packets received during VOIP calls.

28. (original) The administrative server of claim 27, wherein the analyzer of the administrative server is operable to determine whether the numbers of data packets transmitted during the VOIP calls, and/or the numbers of data packets received during VOIP calls, are substantially unchanging over time.

29. (original) The administrative server of claim 28, wherein a determination is made that a given call is inactive when the number of data packets transmitted and/or received during that call over a given period of time does not exceed a threshold level.

30. (original) The administrative server of claim 29, wherein the administrative server is operable to vary the threshold level dependent on one or more other parameters.

31. (original) The administrative server of claim 20, wherein the administrative server is operable to transmit the at least one command to the one or more session controllers over the one or more packet switched networks.

32. (currently amended) An administrative server on a voice-over-Internet (VOIP) network, said network comprising plural gateways which service VoiP calls by establishing connections over the Internet, said administrative server ~~including session controllers for calls on the network, said server comprising~~

~~a transmitter operable to: (i) send a request for information to one or more session controllers, the information concerning one or more VOIP calls being supported by the one or more session controllers; and (ii) send at least one command to the one or more session controllers that causes the session controllers to drop any VOIP calls that are determined to be inactive;~~ a receiver for receiving packet information from each of plural gateways, said information relating to packets to be exchanged between said gateway and another of said

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gateways, and a transmitter for transmitting a command to said gateway to tear down a call if said information indicates a call between said gateway from which said information was received and an additional and different gateway has been hung.

33. (original) The administrative server of claim 32, wherein the server is operable to send ~~the a~~ request for information to ~~the~~ one or more session controllers at a predetermined rate, and wherein said session controllers send said request to said gateway.-

34. (original) The administrative server of claim 33, wherein the predetermined rate is variable depending on one or more other parameters.

35. (original) The administrative server of claim 33, wherein the one or more other parameters include a processing load on the session controllers.

36. (original) The administrative server of claim 32, further comprising:
a receiver operable to receive the information from the one or more session controllers;
and
an analyzer operable to determine whether any of the calls are inactive.

37. (original) The administrative server of claim 32, wherein:
the information concerning the VOIP calls includes call IDs and uptime values;
the analyzer is operable to determine that a call is inactive when the uptime value thereof exceeds a threshold level.

38. (original) The administrative server of claim 32, wherein:
the information includes numbers of data packets transmitted and/or received during the VOIP calls;
the analyzer is operable to determine that a call is inactive when the numbers of data packets transmitted and/or received during that call are substantially unchanging over time.

39. (original) The administrative server of claim 32, the transmitter is operable to send the at least one command to the one or more session controllers over the one or more packet switched networks.

40. (currently amended) An apparatus on a voice-over-Internet (VOIP) network including session controllers for setting up, maintaining and tearing down calls at different locations on the network, said session controllers being associated with one or more gateways, said apparatus operable to execute a software program that causes a processor and supporting devices to carry out actions, comprising:

 sending a request for information to ~~one or more~~ a plurality of session controllers, the information concerning one or more VOIP calls being supported by ~~the one or more of the~~ session controllers;

 receiving the information from the one or more session controllers;

 analyzing the information to determine whether any of the calls are inactive; and

 sending at least one command to the one or more session controllers and gateways that causes the session controllers and gateways to drop any VOIP calls that are determined to be inactive.

41. (currently amended) The apparatus of claim 40 wherein communications between sessions controllers and said apparatus is via an alternative channel. ~~An apparatus on a voice-over-Internet (VOIP) network including session controllers for calls on the network, comprising:~~

~~means for sending a request for information to one or more session controllers, the information concerning one or more VOIP calls being supported by the one or more session controllers;~~

~~means for receiving the information from the one or more session controllers;~~

~~means for analyzing the information to determine whether any of the calls are inactive;~~
and

~~means for sending at least one command to the one or more session controllers that causes the session controllers to drop any VOIP calls that are determined to be inactive.~~

42.- 44. Canceled.